

§ 1.3

V_A means design maneuvering speed.

V_B means design speed for maximum gust intensity.

V_C means design cruising speed.

V_D means design diving speed.

V_{DF}/M_{DF} means demonstrated flight diving speed.

V_{EF} means the speed at which the critical engine is assumed to fail during takeoff.

V_F means design flap speed.

V_{FC}/M_{FC} means maximum speed for stability characteristics.

V_{FE} means maximum flap extended speed.

V_{FTO} means final takeoff speed.

V_H means maximum speed in level flight with maximum continuous power.

V_{LE} means maximum landing gear extended speed.

V_{LO} means maximum landing gear operating speed.

V_{LOF} means lift-off speed.

V_{MC} means minimum control speed with the critical engine inoperative.

V_{MO}/M_{MO} means maximum operating limit speed.

V_{MU} means minimum unstick speed.

V_{NE} means never-exceed speed.

V_{NO} means maximum structural cruising speed.

V_R means rotation speed.

V_{REF} means reference landing speed.

V_S means the stalling speed or the minimum steady flight speed at which the airplane is controllable.

V_{S0} means the stalling speed or the minimum steady flight speed in the landing configuration.

V_{S1} means the stalling speed or the minimum steady flight speed obtained in a specific configuration.

V_{SR} means reference stall speed.

V_{SRO} means reference stall speed in the landing configuration.

V_{SR1} means reference stall speed in a specific configuration.

V_{SW} means speed at which onset of natural or artificial stall warning occurs.

V_{TOSS} means takeoff safety speed for Category A rotorcraft.

V_X means speed for best angle of climb.

V_Y means speed for best rate of climb.

V_I means the maximum speed in the takeoff at which the pilot must take

14 CFR Ch. I (1–1–10 Edition)

the first action (e.g., apply brakes, reduce thrust, deploy speed brakes) to stop the airplane within the accelerate-stop distance. V_1 also means the minimum speed in the takeoff, following a failure of the critical engine at V_{EF} , at which the pilot can continue the takeoff and achieve the required height above the takeoff surface within the takeoff distance.

V_2 means takeoff safety speed.

V_{2min} means minimum takeoff safety speed.

VFR means visual flight rules.

VHF means very high frequency.

VOR means very high frequency omnirange station.

$VORTAC$ means collocated VOR and TACAN.

[Doc. No. 1150, 27 FR 4590, May 15, 1962]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting §1.2, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

EFFECTIVE DATE NOTE: By Amdt. 1–64, 74 FR 53384, Oct. 16, 2009, §1.2 was amended by adding the abbreviations *PMA* and *TSO*, effective Apr. 14, 2010. For the convenience of the user, the added text is set forth as follows:

§ 1.2 Abbreviations and symbols.

*	*	*	*	*
<i>PMA</i> means parts manufacturer approval.				
*	*	*	*	*
<i>TSO</i> means technical standard order.				
*	*	*	*	*

§ 1.3 Rules of construction.

(a) In subchapters A through K of this chapter, unless the context requires otherwise:

- (1) Words importing the singular include the plural;
- (2) Words importing the plural include the singular; and
- (3) Words importing the masculine gender include the feminine.

(b) In subchapters A through K of this chapter, the word:

- (1) *Shall* is used in an imperative sense;
- (2) *May* is used in a permissive sense to state authority or permission to do